

9 January 1956

MEMORANDUM

To : Paul Oppermann, Director of Planning
From : James E. McCarthy, Chief, Land Planning Division
Subject: Bay Area Rapid Transit

I have spent 10 hours reading and studying the report on Regional Rapid Transit by Parsons, Brinkerhoff, Hall and Macdonald, since receiving it Friday, and offer the following comments on the proposed system as it affects San Francisco.

The system is proposed as a frankly interurban system, and is designed and proposed for operation so as to be of incidental value as a local intracity carrier. This is demonstrated by the proposed fare structure: any ride within the D zone -- Presidio to South San Francisco is 30 cents. Separate fares are recommended for local feeder services. Hence a ride via Muni bus to the Ocean Avenue station and a transfer to a downtown train would cost 45 cents. Such a fare will not divert any one from freeways.

On the East Bay side, the intra-zone fare within the K zone -- Lake Temescal and North Berkeley to West Oakland and Fruitvale -- is only 20 cents. The system, with such a fare schedule would be much more serviceable locally in the East Bay than the system in San Francisco. Equitable and comparable rates should be established for the two zones, or the D zone could be split into two zones -- one within the City and County, and a second zone for Daly City and South San Francisco.

Concerning the route of the Peninsula line, we have indicated to Messrs. Douglas et al that Valencia Street would be acceptable as a route for the elevated, but we expressed serious doubts as to the desirability or acceptability of residential Alemany Boulevard as a route for the elevated. The more desirable alternative of the Southern Freeway was eliminated from consideration by P.B.H. & M. because of the time lag between the planning of the freeway and the rapid transit (see page 66, column 4). Since the Mayor has stated a desire to submit a transit proposal to the voters in June, perhaps it would be feasible to provide for a Muni line on that freeway route which could be turned over to the BART when/if the Peninsula Line is built. High priority should be given this matter before the State Highway public hearings on the Southern Freeway and the signing of any freeway agreements by the City.

The only San Francisco station with parking facilities projected is Ocean Avenue with space for 350 autos. We should obtain from P.B.H. & M. large-scale drawings of their routes and station locations and property acquisition proposals to help us in our review. The route drawings in the report are small-scale and comparatively generalized. The relation of the parking lot to adjacent land should be carefully considered. The serviceability of the

station locations can be best determined only after a thorough review and consideration of revamping local routes to feed the rapid transit system. The Ocean Avenue station, for instance might be better at Geneva; the Twenty-second Street station might be better at 24th, or Army, or 16th.

The Marin line details are new to us since a decision as to the method of crossing the Gate had not been definitely made when we last met with Walter Douglas last summer. The Green Street station on Columbus Avenue seems well located for local serviceability, but the Van Ness and Lombard station might better be pushed west to Fillmore. The need for the Presidio station and the design of the elevated where it "passes around the toll plaza hill" on the view side (page 65, column 1) should be reviewed from large-scale drawings and with the benefit of a fuller-scale explanation then was appropriate or proper to give in the report.

The proposed system, like the report describing it, is well-conceived if not stupendous. As soon as it has been studied by the Municipal Railway, Utilities Engineering, and Department of Public Works people, we should all meet with Walter Douglas and Rush Ziegenfelder -- before they leave San Francisco -- to get a fuller understanding of the reasoning behind the points raised here.

The obvious and urgent next step is then to develop the local plan, using the \$68,000 for consultant help, and prepare Mr. Christopher's bond issue program.

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18 April 1956

Enclosure A

To : Mayor George Christopher
From : Interdepartmental Committee on Transit
Subject: Proposed Rapid Transit Plan for San Francisco

The rapid transit proposed now for San Francisco is based on the system proposed in 1950 (A Subway and Rapid Transit System for San Francisco, Department of City Planning, April 1950), modified and integrated with the regional rapid transit system proposed in 1956 to the Bay Area Rapid Transit Commission (Regional Rapid Transit, Parsons, Brinckerhoff, Hall and Macdonald, January 1956). The system is thus composed of trunk line rail routes radiating from the Downtown district, operating with train-type equipment.

A. Regional System

The proposed regional system, endorsed in principle by the Interdepartmental Transit Committee, consists of two routes within San Francisco: the Peninsula-Trans-Bay line and the Marin line.

The Peninsula-Trans-Bay line is in subway under Kearny, Market and Valencia Streets to 14th Street, with stations on Kearny between California and Bush Streets, and on Market between Stockton and Powell Streets and between Seventh and Eighth Streets. The line then extends on elevated structure down Valencia Street, tunnels under Bernal Heights, and runs via elevated structure down Alemany Boulevard and the Southern Pacific right-of-way to the County line. An alternate routing through the Bernal Cut and along the Southern Freeway can also be considered if the freeway and transit design and construction could be carried out simultaneously. Stations proposed are at 22d Street and at Ocean Avenue.

So that this regional line could serve local rapid transit needs as well, substituting for the 1950 Mission line, it is recommended that full consideration be given to a readjustment of fares within the city, with provisions for interchange with surface lines, so that they would be comparable to the fares of the local system, and that there be a modification of station locations or the addition of one more station in the Mission district.

Rather than having one station at 22d Street, two stations might be located in the Mission district, one at 16th Street connecting with an important crosstown bus route serving industrial areas, and another at 24th Street or at Army Street. The feasibility and acceptability of such a revision can be determined after a study of the pattern of local surface line revisions, and the requirements of the regional line patrons. The addition of a station in the inner part of the city should not be inconsistent with the general standards of station spacing on the Peninsula line.

The planned stations have intervals of 2.66 miles between 22d Street and Ocean Avenue, and 2.45 miles between Ocean Avenue and Daly City, whereas the Atherton-Menlo Park and Palo Alto stations are but 1.29 miles apart, and only 1.72 miles separates Palo Alto from California Avenue. The closer spacing of stations within the central city which would result from the addition of one station in the Mission appears justifiable in terms of added benefits.

The Marin line as proposed is in subway from a stub terminal at Kearny and Bush Streets, running under Kearny Street and Columbus Avenue, tunneling under Russian Hill and extending on elevated structure out Lombard Street and into the Presidio paralleling the Golden Gate Bridge approach. Stations are proposed at Columbus and Green, Van Ness and Lombard, and at Halleck Street near the Parade Grounds in the Presidio. Transfer to the Peninsula-Trans-Bay line giving access to the Market Street stations can be made at the two-level Kearny-California station, by escalator from one platform to the other.

With a readjustment of fares within the city, including provisions for interchange with surface lines, so that they would be comparable to the fares of the local system, and a modification of station locations, or the addition of one station, this regional line could also serve local rapid transit needs, supplementing the coverage of the 1950 rapid transit plan.

The addition of a station at Fillmore or Divisadero Street would make this line more serviceable to the Marina District. Such a station might also serve as a substitute for the Halleck Street station in the Presidio.

B. The Local System

To supplement the regional rapid transit system and to give full rapid transit coverage of the city, a second pair of subway tracks for local service is recommended under Market Street. The same considerations which led to the recommendation of such a subway in 1950 still apply, and construction of such a local system has been assumed by the Bay Area Rapid Transit Commission engineers in the design of their Market Street subway.

Essentially a local rather than express system, the trains would operate with fewer cars than the regional system. Stations of the local system thus would be shorter and would be spaced at shorter intervals than those of the regional system. The 1950 plan recommended five stations on Market Street between Kearny Street and Van Ness Avenue, whereas the regional system would have only two. The Market Street stations of the regional system would be mezzanine type and a transfer between the regional and local systems would be possible at these stations.

In order to achieve regional integration the 1950 plan terminated in a loop via Market and First Streets to the Bay Bridge Terminal, and via Mission, Beale, Pine and Sansome Streets back to Market. Reconsideration must now be given to this inner terminal, for the Bay Bridge Terminal would be retained as a regional terminal only if the minimum plan for regional transit were adopted, using the Bay Bridge rather than a subaqueous tube to cross the Bay, and using an elevated structure on Mission Street rather than a Market Street subway.

If the optimum regional system is adopted, including the subaqueous tube, the Bay Bridge Terminal might be converted to an inter-regional bus terminal (as proposed in Modernizing Downtown San Francisco, Department of City Planning, January 1955, page 36). Such a new use would not alone justify the extra cost of terminating the subway at the Bridge Terminal. It is suggested, therefore that consideration be given to a stub terminal at Bush, Battery and First Streets on Market Street as an alternate to the loop terminal. This route would provide adequate service to the majority of destinations in the Lower Market-Financial District, would shorten the distance of the subway, and reduce the number of stations east of Van Ness Avenue from nine to six.

The Market Street subway would have two branches, the Twin Peaks and the Sunset, affording direct service to the southwestern section of the city.

The Twin Peaks line would extend through the Twin Peaks Tunnel, under West Portal Avenue and the Municipal Railway right-of-way in Lakeside, and along Nineteenth Avenue and Junipero Serra, under or on the surface as future detailed studies may determine, to the Daly City station of the Peninsula line of the regional system at Knowles Avenue. The 1950 plan extended this line to a common terminal with the Mission line on the Southern Pacific right-of-way at Palmetto Avenue. The modification described above is necessary to achieve a desirable integration with the regional system, and could be integrated with the Junipero Serra Freeway as well. This line would have eight stations west of Van Ness, as planned in 1950: Church Street, Castro or Eureka Valley, Forest Hill, West Portal, St. Francis Circle, Stonestown, State College-Parkmerced, and the terminal at Daly City.

The Sunset line in 1950 was planned to run on Duboce Avenue, through the Sunset Tunnel and a subway extension under Frederick Street to Arguello Boulevard, and then on a separated right-of-way along the edge of Golden Gate Park to Nineteenth Avenue. West of the Sunset Tunnel the line must now be integrated with the Western Freeway, for which the State Division of Highways is presently developing preliminary plans. As an alternate to the routing along the edge of Golden Gate Park it is recommended that consideration be given to an elevated structure on Irving Street, an 80 foot street which is commercial west of Seventh Avenue. As planned in 1950 this line would have four stations west of Van Ness: Duboce Park, Stanyan Street, Ninth Avenue and Nineteenth Avenue.

It is also recommended that consideration be given the division of the Stanyan station into two: Cole Street and Arguello Boulevard. The first would better serve Ashbury Heights, and the latter could directly serve the University of California Medical Center.

The 1950 plan included a subway under Geary extending from a terminal on Montgomery, via Market, Geary and Park-Presidio to California. The outer terminal was predicated on a possible connection or extension to Marin County. Since the Marin line of the regional system is now proposed to be routed via the Marina, the Geary line may be extended westward along Geary. In 1950 it was recommended that the Geary subway be coordinated with the plans for the widening of Geary through the Western Addition. Such coordinated planning should be effected immediately if the potential cost savings are to be realized. Consideration should also be given the possibility of developing this line on elevated structure in the Richmond district. The ample width of 125 feet and the commercial character of outer Geary Boulevard make this consideration feasible if elevated transit is accepted anywhere in San Francisco. Stations on this line could be located at Market and Kearny, Union Square, Taylor-Jones, Polk-Van Ness, Fillmore-Hamilton Square, Sears-Kaiser Hospital, Arguello and Lighth, and at Eighteenth, Twenty-fifth, Washington High-Lincoln Park, (Twenty-third), Veterans Hospital, (Forty-first), and Sutro Heights if extended.

The 1950 plan provided for servicing the southeastern sections of the city by express buses on the Bayshore Freeway. Such service would not be comparable to that afforded elsewhere by rail rapid transit, and would be limited essentially to linking Downtown and South-of-Market to the residential neighborhoods in the Bayshore community.

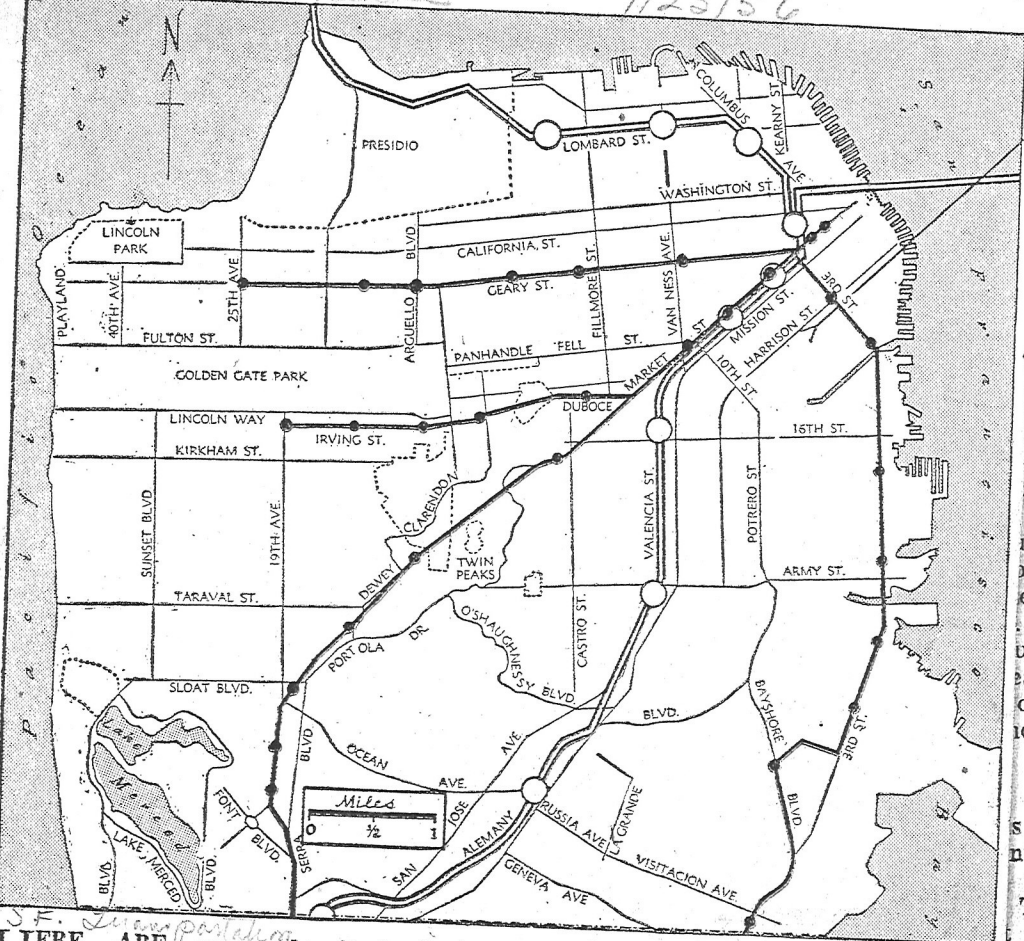
In order to complete the basic radial trunk line rail system, and to serve the Bayshore industrial district as well, it is recommended that consideration be given to the extension of the Geary subway, or the development of a separate route from the inner Market Street Terminal, via Third Street to Harrison and thence on elevated structure on Third Street to the Bayview business district at Oakdale-Palou with stops at Townsend-Berry, Nineteenth-Twentieth, Twenty-fifth-Army, and Evans-Fairfax. This line could be extended on elevated via Williams and Phelps to Bayshore and Bacon (300 feet from the Portola business district on San Bruno Avenue), and thence via Bayshore and Geneva to the Cow Palace with a station at Leland-Visitation.

With such a Geary-Third line and Market-Twin Peaks-Sunset pair, coupled with the Peninsula and Marin line of the Regional system integrated to afford local service, San Francisco would have a system of rail rapid transit affording city-wide coverage on an equitable basis. In order to provide the flexibility of full interchange between the lines, consideration should be given to moving the California-Bush terminal of the Marin line and the California-Bush station of the Trans-Bay-Peninsula line south on Kearny to

provide for a minimum walking distance for transferring to the Geary-Third line. As an alternate, a moving sidewalk connection underground might be considered.

This pattern of radial rail routes provides six trunks which can be fed by a series of bus lines which could be linked together to serve as major crosstown routes as well. Supplementary local bus lines would give complete feeder coverage to hilltop and outlying neighborhoods. Like the 1950 plan, the local part of this system would use specially designed platform-height trains, operating in units of two, four, or six cars and would provide a system that would be entirely grade-separated.

Transit Bond Subway, Elevated Routes



HERE ARE proposed routes of both regional rapid transit and local (Muni) subways and elevated lines in San Francisco. Planning Director Paul Oppermann presented the city proposals to Mayor George Christopher, and the Mayor said he would suggest that the Board of Supervisors hold public hearings before considering a possible bond issue. The proposed subway or elevated city routes are shown in solid black lines; regional rapid transit subway or elevated routes in double gray lines. The city lines would include a Market street subway from

Bush, Battery and Third streets to the Twin Peaks Tunnel. (The regional rapid transit lines would have separate tracks in the same tube, between Third and Gough streets.) A Twin Peaks city line would extend through the tunnel and on to Daly City. A Sunset line would branch off the main Market street route along Duboce avenue and extend westward on Irving street to Nineteenth avenue. A Geary street subway from Market street to the Richmond district would extend to Twenty-fifth avenue. An extension of the Geary line would cross Market, run underground along Third street

to Harrison, thence out Third as an elevated line to Oakdale and Palou avenues in the Bayview District. If desired, this line could be extended to the Cow Palace via Williams avenue, Phelps street, Bayshore boulevard and Geneva avenue. Subway and elevated stations on both city and regional lines are shown as dots. The plan shows two stations instead of one on the regional line through the Mission district, and city planner James R. McCarthy said this was to permit greater use of the regional system for local transit, as well as to facilitate its integration with local lines.

levied for the current fiscal year. Chances are, the directors will investigate means of obtaining a loan to provide enough money to hire whatever small office staff will be necessary during the first few months. Only then will the directors be able to take up their No. 1 concern—public transportation.

EXPERT SOUGHT

Presumably the directors first will want to hire a professional

freeways and parking time and nervous energy incidents, a depreciation of for fright at the mention 1,500,000,000, when it is nine such counties, and each 7,000,000. We urge Christopher when he says: farsighted they will join

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The high-speed ticker tape ran minutes late in recording transactions on both the early drop and later climb. Some leaders edged back from their peak gains as trading slackened.

LEADERS IMPROVE

Here are some late prices: Chrysler up 25 cents at \$67, General Motors down 25 cents at \$39.37, Boeing up \$1 at \$50.87, Douglas up 25 cents at \$78.75, U.S. Steel up 50 cents at \$58.62, Bethlehem up 50 cents at \$42.25, Anaconda up 75 cents at \$64, American Telephone off 37 cents at \$174.50, Allied Chemical up 87 cents at \$86.62, Du Pont off 25 cents at \$180, and Baltimore & Ohio up \$1.12 at \$42.37.

Based on Associated Press averages, yesterday's nosedive flipped about four billion dollars from the quoted value of all stocks listed on the New York Stock Exchange.

CALLED TECHNICAL

The decline was generally described as purely technical. Brokers said the market was seeking a new low level that could prove attractive to buyers. In the background, however, were a number of developments which indicated a tightening up of the economy. The declining market was given fresh impetus a week ago when former President Hoover said the current inflation showed possibilities of foreshadowing another depression.

Some brokers have been advising investors to proceed with caution and have suggested that mild business recession could manpower cut alone, involving a much lower payroll and subsistence costs, would go far to account for a lower overall defense appropriation.

Moreover, prices of Soviet industrial goods have fallen somewhat since 1952, while labor productivity has risen, so a lesser amount of rubles today will buy as much if not more munitions than five years ago.

MORE MONEY NEEDED

It is reasonable to assume that recent changes in military policy and technology, developments in atomic weapons and guided missiles, require higher, not lower, defense outlays.

Experts on Soviet economics also caution against propaganda comparing the relatively low percentage of the total Soviet budget allotted to defense.

More than 50 per cent of the United States federal budget goes for defense, compared to Russia's 16 per cent. However, the Soviet budget